A.

SEQ ID NO:63 - AME 5 light chain variable region amino acid sequence

DIQMTQSPSSLSASVGDRVTITCRASSSVHYIHWYQQKPGKVPKLLIYATSGLAS GVPSRFSGSGSGTDFTLTISSLQPEDVATYYCQTWTFNPPTFGGGTKVEIK

В.

SEQ ID NO:64 - AME 5 light chain variable region nucleic acid sequence

GACATCCAGATGACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAGGA
GACAGAGTCACCATCACTTGCAGGGCCAGCTCAAGTGTACATTACATC
CACTGGTACCAGCAGAAACCAGGGAAAGTTCCTAAGCTCTTGATCTAT
GCCACATCCGGCCTGGCTTCTGGGGTCCCATCTCGGTTCAGTGGCAGT
GGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCTGAA
GATGTTGCCACTTATTACTGCCAGACTTGGACTTTTAACCCTCCCACG
TTCGGCGGAGGGACCAAGGTGGAGATCAAA

A.

SEQ ID NO:65 - AME 5 heavy chain variable region amino acid sequence

QVQLVQSGAEVKKPGASVKVSCKASGYTFTSYNMHWVRQAPGQGLEWMGAIY PGNGDTSYNQKFKWRVTMTRDTSTSTVYMELSSLRSEDTAVYYCARSTYYGGD WQFDEWGKGTTVTVSS

В.

SEQ ID NO:66 - AME 5 heavy chain variable region nucleic acid sequence

CAGGTGCAGCTGGTGCAGTCTGGTGCTGAAGTGAAGAAGCCTGGGGCC
TCAGTGAAGGTGTCCTGCAAGGCATCTGGATACACCTTCACCAGCTAC
AATATGCACTGGGTGCGACAGGCCCCTGGACAAGGGCTTGAGTGGATG
GGAGCCATCTATCCTGGAAATGGTGATACAAGCTACAATCAGAAGTTT
AAATGGAGAGTCACCATGACCAGGGACACGTCCACGAGCACAGTCTAC
ATGGAGCTGAGCAGCCTGAGATCTGAGGACACGGCCGTGTATTACTGT
GCGAGATCGACTTATTACGGCGGTGACTGGCAGTTCGACGAGTGGGGC
AAAGGGACCACGGTCACCGTCTCCTCA

A.	Amino acid sequence of a human light chain framework region VkI (DPK4)
	(A20) with interspersed CDR sequences labeled
	(FRL1 - SEQ ID NO:87) (CDRL1) (FRL2 - SEQ ID NO:88) (CDRL2)
	4TQSPSSLSASVGDRVTITCXXXXXXXXXXXWYQQKPGKVPKLLIYXXXXXXXX
	(FRL3 SEQ ID NO:89) (CDRL3) (FRL4 SEQ ID NO:90)
GVPS	SRFSGSGSGTDFTLTISSLQPEDVATYYC <u>XXXXXXXXX</u> FGGGTKVEIK
D	Nucleic acid sequence of a human light chain framework region VkI (DPK4)
D.	(A20) with interspersed CDR sequences labeled
	•
GAC	
	(CDRL1)
TCA(CCATCACTTGC <u>XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX</u>
	(FRL2 – SEQ ID NO:92) (CDRL2)
	AAACCAGGGAAAGTTCCTAAGCTCTTGATCTAT <u>XXXXXXXXXXXXXXXXXX</u>
(CDRI	22 cont.) (FRL3 – SEQ ID NO:93)
XXX	<u>XGGGGTCCCATCTCGGTTCAGTGGCAGTGGATCTGGGACAGATTTCACTCT</u>
CAC	CATCAGCAGCCTGCAGCCTGAAGATGTTGCCACTTATTACTGCXXXXXXXXX
	(CDRL3) (FRL4 - SEQ ID NO:94)
XXX	<u>XXXXXXXXXXXXXXXX</u> TTCGGCGGAGGGACCAAGGTGGAGA

TCAAA

A.	Amino acid sequence of a human heavy chain framework region VHI DP7/21-2
	with interspersed CDR sequences labeled
QV(——————————————————————————————————————
	(CDRH2) (FRH3 - SEQ ID NO:97)
<u> </u>	XXXXXXXXXXXXXXXRVTMTRDTSTSTVYMELSSLRSEDTAVYYCAR
	(CDRH3) (FRH4-SEQ ID NO:98) XXXXXXXXXWGKGTTVTVSS
B.	Nucleic acid sequence of a human heavy chain framework region VHI DP7/21-2 with interspersed CDR sequences labeled
CAC	(FRH1 - SEQ ID NO:99) GGTGCAGCTGGTGCAGTCTGGTGCTGAAGTGAAGAAGCCTGGGGCCTCAGTG
—— AA(
—— GGT	(FRH2 – SEQ ID NO:100) (CDRH2) FGCGACAGGCCCCTGGACAAGGGCTTGAGTGGATGGGAXXXXXXXXXX
<u> </u>	CDRH2 cont.) XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
CAC	(FRH3 – SEQ ID NO:101) GGGACACGTCCACGAGCACAGTCTACATGGAGCTGAGCAGCCTGAGATCTGA
GG/	(CDRH3) ACACGGCCGTGTATTACTGTGCGAGA <u>XXXXXXXXXXXXXXXXXXXXXXXXXX</u>
	CDRH3) (FRH4-SEQ ID NO:102) XXXXXXXXXTGGGGCAAAGGGACCACGGTCACCGTCTCCTCA

A.

SEQ ID NO:67 - AME 33 complete light chain amino acid sequence

EIVLTQSPGTLSLSPGERATLSCRASSSVPYIHWYQQKPGQAPRLLIYATSALASGIPDR FSGSGSGTDFTLTISRLEPEDFAVYYCQQWLSNPPTFGQGTKLEIK<u>RTVAAPSVFIFPPS</u> DEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSST LTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

- Constant Region is underlined

B.

SEQ ID NO:68 - AME 33 complete light chain nucleic acid sequence

GAAATTGTGTTGACGCAGTCTCCAGGCACCCTGTCTTTGTCTCCAGGGGAAAGAG
CCACCCTCTCCTGCAGGGCCAGCTCCAAGTGTACCGTACATCCACTGGTACCAGCA
GAAACCTGGCCAGGCTCCCAGGCTCCTCATCTATGCCACATCCGCTCTGGCTTCTG
GCATCCCAGACAGGTTCAGTGGCAGTGGGTCTGGGACAGACTTCACTCTCACCAT
CAGCAGACTGGAGCCTGAAGATTTTGCAGTGTATTACTGTCAGCAGTGGCTGAGT
AACCCACCCACTTTTGGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTG
CACCATCTGTCTTCATCTTCCCGCCATCTGATGAGCAGTTGAAATCTGGAACTGCC
TCTGTTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAGGCCAAAGTACAGTGGA
AGGTGGATAACGCCCTCCAATCGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGA
CAGCAAGGACAGCACCTACAGCCTCAGCAGCACCCTGACGCTGAGCAAAGCAGA
CTACGAGAAACACAAAGTCTACGCCTGCGAAGTCACCCATCAGGGCCTGAGCTCG
CCCGTCACAAAGAGCTTCAACAGGGGAAGAGTGTTAG

A. SEQ ID NO:69 - AME 33 complete heavy chain amino acid sequence

EVQLVQSGAEVKKPGESLKISCKGSGRTFTSYNMHWVRQMPGKGLEWMGAIYPLTG
DTSYNQKSKLQVTISADKSISTAYLQWSSLKASDTAMYYCARSTYVGGDWQFDVWG
KGTTVTVSSASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSG
VHTFPAVLQSSGLYSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKKVEPKSCDKTH
TCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGV
EVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA
KGQPREPQVYTLPPSRDELTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTPPV
LDSDGSFFLYSKLTVDKSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK

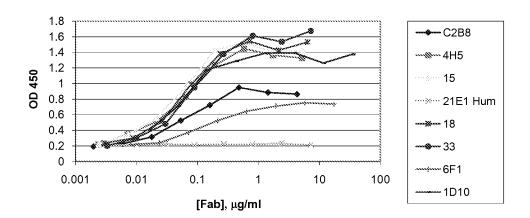
- Constant Region is underlined; the "D" at position 280 and "K" at position 290 are in bold

B. SEQ ID NO:70 - AME 33 complete heavy chain nucleic acid sequence

GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTG AAGATCTCCTGTAAGGGTTCTGGCCGTACATTTACCAGTTACAATATGCACTGGGT GCGCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGGCTATTTATCCCTTGACG GGTGATACTTCCTACAATCAGAAGTCGAAACTCCAGGTCACCATCTCAGCCGACA AGTCCATCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGC CATGTATTACTGTGCGAGATCGACTTACGTGGGCGGTGACTGGCAGTTCGATGTCT GGGGCAAGGGACCACGGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGT CTTCCCCTGGCACCTCCTCAAGAGCACCTCTGGGGGCACAGCGGCCCTGGGCT GCCTGGTCAAGGACTACTTCCCCGAACCGGTGACGGTGTCGTGGAACTCAGGCGC CCTGACCAGCGCGTGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACTCTACT CCCTCAGCAGCGTGGTGACCGTGCCCTCCAGCAGCTTGGGCACCCAGACCTACAT CTGCAACGTGAATCACAAGCCCAGCAACACCAAGGTGGACAAGAAGGTTGAGCC CAAATCTTGTGACAAAACTCACACATGCCCACCGTGCCCAGCACCTGAACTCCTG GGGGGACCGTCAGTCTTCCTCTTCCCCCAAAACCCAAGGACACCCTCATGATCTC CCGGACCCCTGAGGTCACATGCGTGGTGGTGGACGTGAGCCACGAAGACCCTGAG GTCAAGTTCAACTGGTACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAAG CCGCGGGAGGAGCAGTACAACAGCACGTACCGTGTGGTCAGCGTCCTCACCGTCC TGCACCAGGACTGGCTGAATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAG CCCTCCCAGCCCCATCGAGAAAACCATCTCCAAAGCCAAAGGGCAGCCCCGAGA ACCACAGGTGTACACCCTGCCCCCATCCCGGGACGAGCTGACCAAGAACCAGGTC AGCCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGACATCGCCGTGGAGTGGG AGAGCAATGGGCAGCCGGAGAACAACTACAAGACCACGCCTCCCGTGCTGGACTC CGACGGCTCCTTCTCCTCTATAGCAAGCTCACCGTGGACAAGAGCAGGTGGCAG CAGGGGAACGTCTTCTCATGCTCCGTGATGCATGAGGCTCTGCACAACCACTACA CGCAGAAGAGCCTCTCCCTGTCTCCGGGTAAATGA

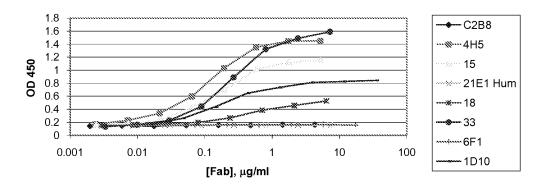
A.

Fab, Binding



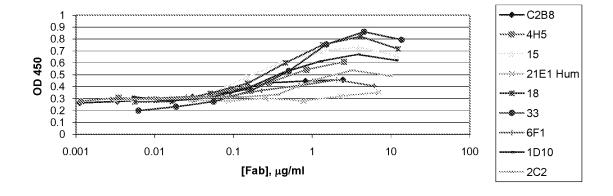
В.

Fab, Off rate



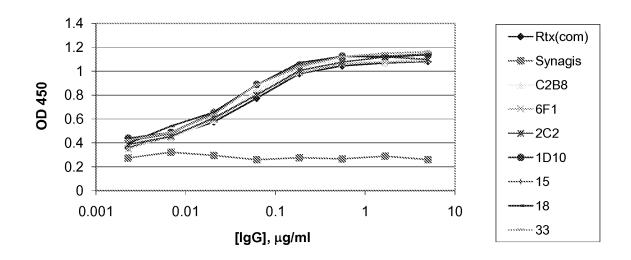
C.

Fab, On rate



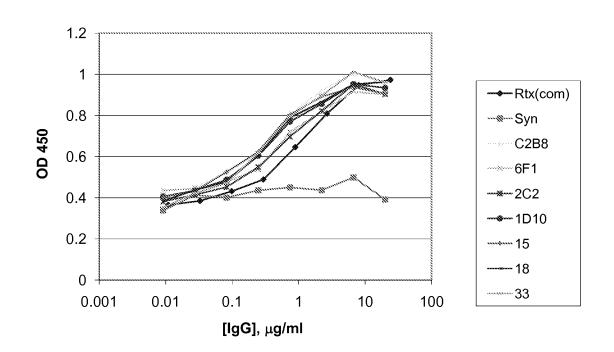
A.

IgG, Off-rate

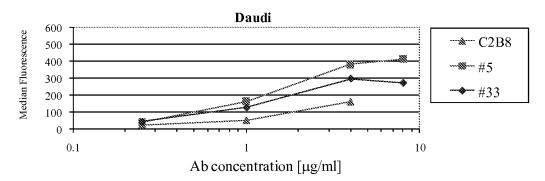


B.

IgG, On-rate

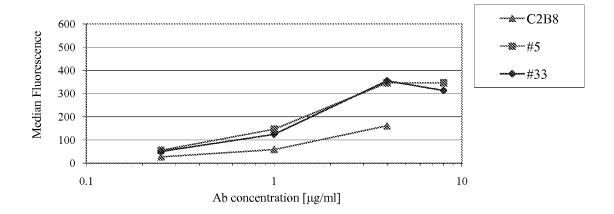


A.



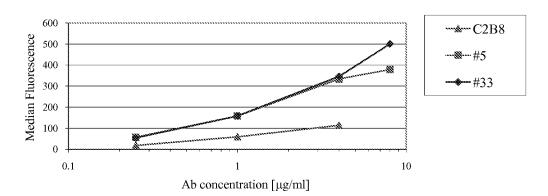
B.

Wil2-S



C.

Ramos



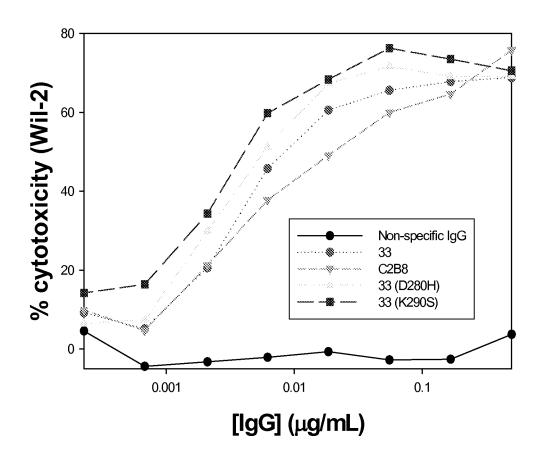


FIGURE 12

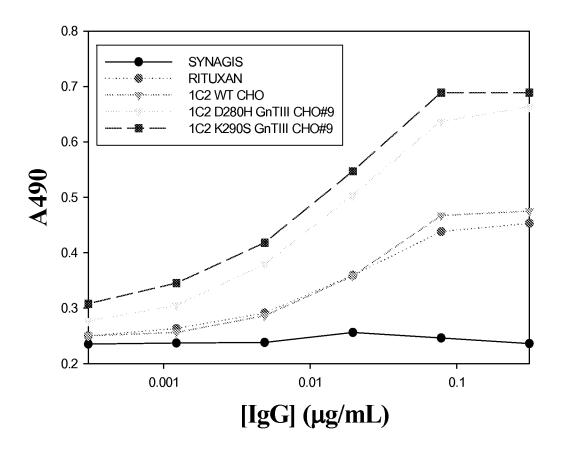


FIGURE 13

